

## WHITNEY PUNCHES

### No. 1 PUNCHES

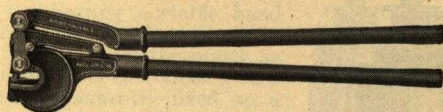


Fig. 22481A

This punch has great capacity, is of simple construction, light in weight and strongly built. Punches and dies in 13 sizes, from  $\frac{3}{16}$  to  $\frac{9}{16}$  inch, by  $\frac{1}{32}$ nds.

### No. 2 PUNCHES

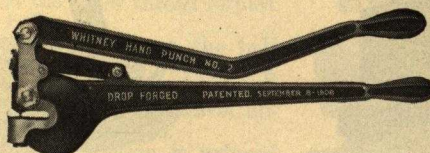


Fig. 22481B

This is a hand metal punch, easily operated and quickly changed. It can be used anywhere with or without vise. Punches and dies in 13 sizes, from  $\frac{1}{8}$  to  $\frac{1}{2}$  inch, by  $\frac{1}{32}$ nds. This punch, as well as the No. 1, has given excellent satisfaction in boiler shops, furnace manufacturers, cornice, tank and stack builders, manufacturing plants, machine and repair shops.

### CHANNEL PUNCHES

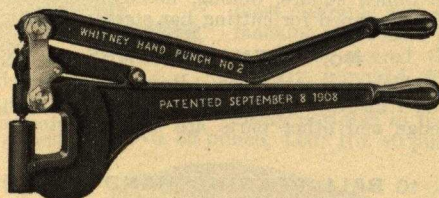


Fig. 22481C

This is something new. It is an excellent portable channel iron punch. Every part is interchangeable with the No. 2 punch, listed above, punches and dies included.

Number.....	1	2	Channel Iron
Capacity.....	$\frac{3}{8}$ -inch Hole	$\frac{5}{16}$ -inch Hole	$\frac{1}{4}$ in $\frac{1}{4}$
	$\frac{1}{4}$ " Iron	$\frac{1}{4}$ " Iron	Iron
Length.....inches	34	23	23
Weight.....pounds	22	14	16 $\frac{1}{2}$
Price.....each	.....	.....	.....
" Extra Punches....."	.....	.....	.....
" " Dies....."	.....	.....	.....

Two punches and one die are included with each punch.



## WHITNEY SHEARS AND PUNCHES

No. 20 BALL-BEARING PUNCH

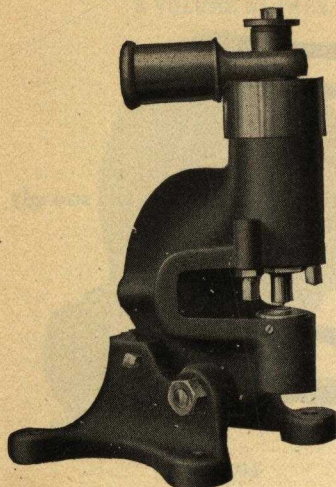


Fig. 8767A

No. 3 BENCH SHEARS

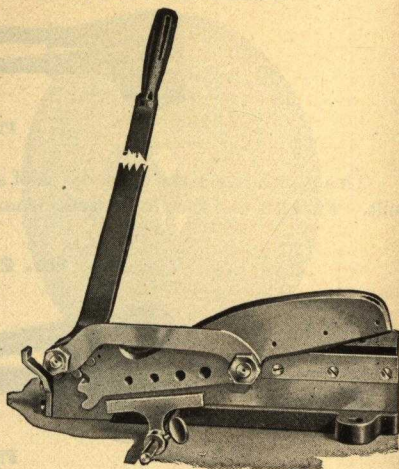


Fig. 8767B

### No. 20 BALL-BEARING PUNCHES

Made of special alloy steel, drop-forged and heat-treated. Spindle of special alloy steel. Top of spindle is turned round and just below this is milled hexagon on which the handle fits. The handle has a 1-inch socket for lever. Capacity,  $\frac{1}{2} \times \frac{1}{32}$  inch through  $\frac{1}{2}$ -inch steel. 2-inch throat depth. Weight,  $14\frac{1}{2}$  pounds without base; 18 pounds with base. All standard punches made  $\frac{1}{32}$  inch oversize. Punches and dies from  $\frac{1}{4}$ -inch to  $\frac{9}{16} \times \frac{1}{32}$ -inch. In ordering, specify size wanted. Each tool equipped with punch and die. Ordered extra regular size punches and dies. Prices upon application.

Can be equipped to punch square, oblong, hexagon or odd shaped holes, or with shearing punches and dies designed for cutting bar steel, on special order.

### No. 3 BENCH SHEARS

Capacity,  $\frac{1}{8}$ -inch in thickness or lighter. Rounds to  $\frac{5}{16}$  inch. Weight, 25 pounds. Length of cutting blades, 7 inches. Blades are made of best material and are ground to a perfect true cutting edge and other parts are made of steel castings. Prices upon application.

### No. 10 BALL-BEARING HAND PUNCHES

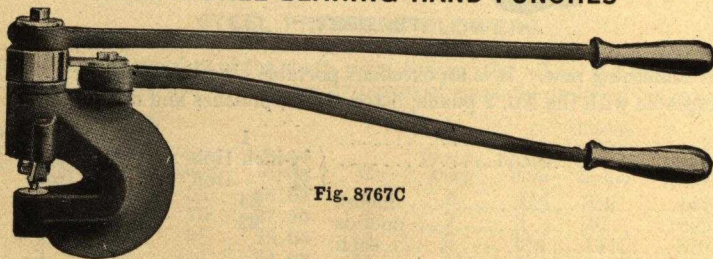


Fig. 8767C

Capacity of tool,  $\frac{3}{8}$ -inch hole through  $\frac{1}{4}$ -inch metal or its equivalent. Depth of throat,  $1\frac{1}{2}$  inches. Length of levers, 18 inches. Weight of punch complete with levers,  $8\frac{1}{2}$  pounds. Prices upon application.



## WHITNEY ALL BALL-BEARING PORTABLE PUNCHES

### FOR ALL STRUCTURAL AND SHOP WORK

The Whitney all ball-bearing portable hand punches can be used freely and satisfactorily without the base, and the cut illustrates the punch as it stands with the base. It is of course a convenience to have a base permanently fixed on a bench where the punch may be used as a permanent fixture when desired, where it is always in place, and from which it can be easily removed when desired for portable purposes.

The means for rotating the spindle to raise and lower the punch, comprises a hand lever attached to the spindle. By operating the lever a rotary movement is imparted to the spindle moving downward upon the screw thread formed by the spiral series of balls.

The spindle does not slide upon the ball thread, but on the contrary, the balls composing said thread, roll in the grooves and travel downward when the spindle descends, and travel upward when the spindle moves upward.

It will thus be seen that friction is reduced to a minimum and that substantially all the power applied to the spindle is transmitted to the punch.

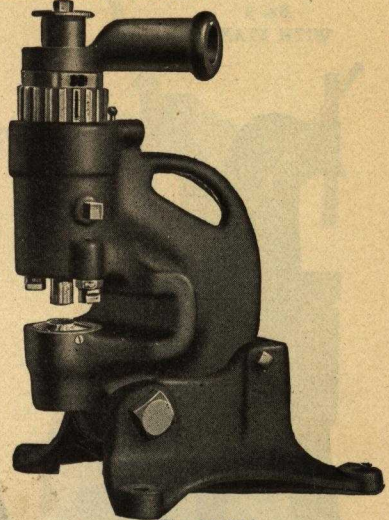


Fig. 23483A

The base which may be used in connection with the Whitney Line of all ball-bearing portable hand punches is made for the convenience of users when it is desired to give the punch a permanent location while in the shop. It is not necessary to the successful working of the punch, but is certainly a great convenience and affords a most desirable and attractive housing for the machine while used for shop purposes.

When desired the punch is easily and quickly removed from its base by simply withdrawing the pins, when the punch is easily portable to the place where required.

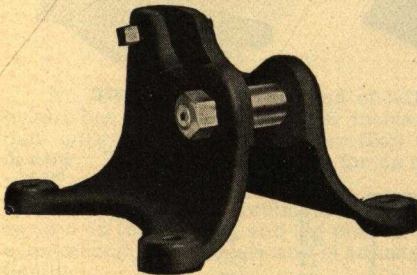


Fig. 23483B

Prices for No. 20 punch, 3.50; No. 30 punch, 4.50; No. 40 punch, 5.50.

### FOR SHEET METAL WORKERS

This tool is drop-forging 40 to 50 point O. H. steel heat treated. It is the lightest and most powerful of its size made.

No. 5 will punch  $\frac{1}{4}$ -inch hole through No. 16 gauge iron or its equivalent.

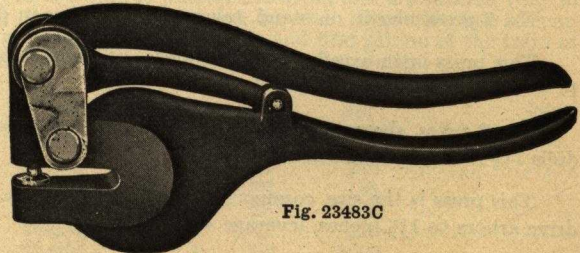


Fig. 23483C

Weight,  $2\frac{3}{4}$  pounds; punch in center of 3 inches; length over all,  $8\frac{1}{4}$  inches; height of gauge,  $\frac{1}{4}$ -inch.

Price, Including 3 Sets of Punches and Dies, $\frac{1}{8}$ , $\frac{3}{16}$ , $\frac{1}{4}$ -inch.....	7.50
" Extra Punches and Dies.....per set	.68
" Other Sizes Made to Order.....each	.75